

**REMARKS**

Claims 1-34 are currently pending in the application. By this amendment, claim 30 is amended and claims 32-34 are added. The above amendments and added claims do not add new matter to the application and are fully supported by the specification. For example, support for new claims 32-34 can be found on paragraph [0024] of the specification. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

***Allowable Claims***

Applicants appreciate the indication that claims 13-22 are allowed. Applicants also appreciate the Examiner's indication that claims 3-8, 11, 25 and 27 contain allowable subject matter and would be allowable if presented in independent form. However, at this time, claims 3, 11, 25 and 27 are not being presented in independent form because it is believed that claims 1 and 23, from which these claims depend, are allowable over the applied art of record. Furthermore, Applicants submit that all of the pending claims are in condition for allowance and that the rejection under § 102 should be withdrawn.

***Claim Objection***

Claim 30 was objected because it depends on claim 13 instead of claim 23. Applicants do not disagree. Accordingly, as Applicants have amended claim 30 consistent with the Examiner's comments, Applicants request withdrawal of this objection.

**35 U.S.C. § 102(b) Rejection**

Claims 1, 2, 9, 10, 12, 23, 24, 26 and 28-31 were rejected under 35 U.S.C. § 102(b) as being anticipated by Article entitled "A General Probabilistic Framework for Worst Case Timing Analysis" by Michael ORSHANSKY et al. This rejection is respectfully traversed.

In order to establish a *prima facie* case of anticipation under 35 U.S.C. § 102, a single prior art reference must disclose each and every element as set forth in the subject claim. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). Applicants respectfully submit that a *prima facie* case of anticipation has not been established as the applied reference fails to teach each and every element of the claims.

More particularly, independent claims 1 and 31 recite, *inter alia*,

grouping ones of the one or more elements in the early path with ones of the one or more elements in the late path having similar delay characteristics; and

deriving an adjusted timing slack for the at least one set of racing paths by at least partially canceling delay contributions from grouped elements having similar delay characteristics.

Furthermore, independent claim 23 recites, *inter alia*,

computing by using the location information a variation in a difference in delays of the elements of the at least one pair; and

deriving from the variation a slack for the late path to the timing test and the early path to the timing test.

The applied reference does not teach at least these features.

Applicants acknowledge that ORSHANSKY discloses a probabilistic timing analysis for determining a worst-case timing analysis for a circuit (see Section 6 or page 560 and Conclusion on page 561). Applicants also acknowledge that ORSHANSKY accounts for path delay and covariances (see Section 4.2 on page 557). However, it is not apparent that ORSHANSKY discloses, or even suggests, grouping ones of the one or more elements in the early path with ones of the one or more elements in the late path having similar delay characteristics and/or deriving an adjusted timing slack for the at least one set of racing paths by at least partially canceling delay contributions from grouped elements having similar delay characteristics. Indeed, the Examiner has failed to identify any language in ORSHANSKY with regard to, e.g., an adjusted timing slack, much less, doing so by at least partially canceling delay contributions from grouped elements having similar delay characteristics. Applicants note, for example, that the language identified by the Examiner as disclosing these features merely discusses mathematical ways of estimating, predicting or evaluating statistical properties of a circuit and lacks any discussion with regard to these specific features.

Moreover, while the Examiner has alleged that tables 2 and 3 of ORSHANSKY discloses computing, by using the location information, a variation in a difference in delays of the elements of the at least one pair and deriving from the variation a slack for the late path to the timing test and the early path to the timing test, the Examiner has failed to identify any specific language in this document in support of such assertions. Applicants note, for example, that tables 2 and 3 merely discloses the statistical results from probabilistic calculations and provide no disclosure with regard to computing by

using the location information a variation in a difference in delays of the elements of the at least one pair and deriving from the variation a slack for the late path to the timing test and the early path to the timing test.

Furthermore, dependent claims 2, 9, 10, 12, 24, 26 and 28-30 recite additional features which are not disclosed, or even suggested, by ORSHANSKY and the Examiner has not shown otherwise.

For example, ORSHANSKY clearly fails to disclose the location based delay characteristics recited in claims 9, 10 and the location information recited in claim 26.

Accordingly, Applicants respectfully submit that the rejection under 35 U.S.C. § 102(b) should be withdrawn.


***Comments on Reasons for Allowance***

In response to the Statement of Reasons for Allowance set forth in the Office Action, Applicants wish to clarify the record with respect to the basis for the patentability of the indicated claims in the present application. In this regard, while Applicants do not disagree with the Examiner's indication that certain identified features are not disclosed by the references, Applicants submit that the claims in the present application recite a combination of features, and that the basis for patentability of these claims is based on the totality of the recited features.

**CONCLUSION**

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 09-0456.

Respectfully submitted,  
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